



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(03897.08139)

Applicant: Hülya Demiryont Paper No.:  
 Application No.: 09/327,594 Group Art Unit: 1775  
 Filed: June 8, 1999 Examiner: McNeil, Jennifer C.  
 Title: THERMOSTABLE GLAZING

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Declaration under 37 C.F.R. § 1.132

Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

Dear Sir:

1. I, Hüseyin Parlar, hereby declare that:  
 [Insert Name]

2. I earned a BS degree(s) in Chemical Engineering from  
 [Insert Highest Degree] [Indicate Subject Area]

Technical University of Istanbul in 1979  
 [Insert University where Degree was Obtained] [Insert Year Degree was Obtained]

3. Since 1986 I have been a Research Engineer employed  
 [Insert Start Date of Employment] [Indicate Title at Sisecam]

by Sisecam AS where my responsibilities have included

Research and development of solar control glazings by Pyrolytic (Spray, Powder and CVD) processes;  
Research and development of Solar Control, Low-E and multifunctional glazings and also mirrors by  
DC Magnetron Sputtering Process / Responsible of Thin Film Laboratory

[Include Any and All Relevant Jobs And Responsibilities]

4. I am skilled in the arts of chemistry and materials science, particularly as related to

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glazings, particularly those applied to glass.

5. I am familiar with U.S. Patent Application Serial Number 09/327,594.

6. I am familiar with the reference cited by the Examiner in the Official Action dated 29 December 2003, specifically, I have read U.S. Patent No. 4,948,677 (Gillery).

7. No coating disclosed in Gillery contains a thermostable solar coating consisting essentially of sputter deposited copper oxide. Also, no coating disclosed in Gillery is thermostable at temperatures in the range of 590 °C to 650 °C. The metallic copper layers of Gillery are used as primary layers and are not thermostable. When heated, the copper films will be oxidized to form a diffusion oxide interlayer with adjacent transparent oxide layer. The solar control layer disclosed in Gillery is a metallic silver film, which is also not thermostable. To prevent this metallic silver film from oxidizing, very stable materials such as chromium, niobium, nickel or titanium are required as protective films. Therefore, Gillery does not disclose a thermostable solar coating.

When the thermostable solar coatings of the present application are heat tested, the coatings are found to be heat treatable and thermostable. Optical properties of the coated glass that are measured before and after the heating process, can be seen in the table below (the definitions of the abbreviations in the table can be found on pages 23-24 of the instant application). After the heating process, there is an increase of about 7% in the transmittance of the coated glass. This unexpected result is not disclosed or taught in Gillery.

The optical and solar specifications are stated separately for the heated and unheated product in the table below.

	subst	Tsol	Rsol 1	Rsol 4	Tvis	Rvis 1	Rvis 4	Sec	TL	T*a	T*b	RL	R1a	R1b
unheated	clear	0.42	0.19	0.19	0.46	0.28	0.25	0.59	73.10	-0.90	4.17	60.20	-3.40	-3.90
heated	clear	0.48	0.20	0.19	0.52	0.27	0.27	0.65	77.00	-0.80	4.82	60.90	-3.40	-3.90

8. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application of any patent issuing therein.

Date: 25.03.2004



Signature of Declarant

Hüseyin Parlak  
Print or Type Name

Research Engineer  
Title